AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A multichamber microdialysis device comprising

a plurality of sample chambers in close side by side arrangement, said sample chambers being defined by circumferential side walls having a first open end for taking up liquid samples into the sample chamber and a second open end providing an exchange opening, and

a dialysate chamber for taking up a dialysate liquid,

wherein the exchange opening of each sample chamber is covered with a separate ~~and distinct~~ semipermeable membrane fixed liquid-tight to the circumferential side walls of the sample chamber in such a manner to provide a diffusion exchange between the sample chamber and the dialysate chamber when the second end of the sample chamber is placed in contact with the dialysate liquid, and

wherein a peripheral marginal section of each semipermeable membrane is clamped between a front face of the circumferential side wall of the sample chamber and a fixing part, wherein each fixing part comprises a ring-shaped portion presenting a circumferential mounting region and an annular wall extending from the perimeter of the ring-shaped portion, the diameter of said annular wall selected to allow frictional engagement of the annular wall with the circumferential side walls of the sample chambers, wherein the outer diameter of a region where the annular wall frictionally engages the circumferential side walls exceeds the sample chamber diameter by not more than 3 mm, the front face of the side wall comprising an opposing ring-shaped circumferential mounting region wherein one of the mounting regions comprises a circumferential groove and the other mounting region comprises a protruding rib fitting into the groove, by which the membrane is pressed into the groove at its peripheral marginal section and clamped between the ring-shaped circumferential mounting region and the opposing ring-shaped circumferential mounting region.

2. (previously presented) The multichamber microdialysis device of claim 1, wherein each semipermeable membrane has an exchange surface area less than 50 mm^2.

3. (previously presented) The multichamber microdialysis device of claim 1, wherein the sample chambers are each in liquid exchange contact with only one of a plurality of dialysate chambers via its exchange opening, and each dialysate chamber is in liquid exchange contact with only one sample chamber.

4. (cancelled)

5. (previously presented) The multichamber microdialysis device of claim 1, wherein the annular wallof the fixing ring has a wall thickness measured in radial direction of less than 1.5 mm.

6. (previously presented) The multichamber microdialysis device of claim 1, wherein the first end of each sample chamber is in contact with a common dialysate chamber via their respective exchange openings.

7. (currently amended) The multichamber microdialysis device of claim 6, wherein the membranes of the sample chambers which are in liquid exchange contact with a common dialysate chamber are fixed by means of a ~~common fixing part comprising a~~ plurality of said fixing parts linked together and spaced to allow the simultaneous attachment of the linked fixing parts to the second end of the sample chambers.

8. (previously presented) The multichamber microdialysis device of claim 1, wherein the semipermeable membrane comprises cellulose acetate or regenerated cellulose.

9. (currently amended) The multichamber microdialysis device of claim 1, wherein the device comprises at least 8 sample ~~chambers~~ chambers.

10. (currently amended) The multichamber microdialysis device of claim 1, wherein the device comprises at least 48 sample ~~chambers~~ chambers.

11. (currently amended) The multichamber microdialysis device of claim 1, wherein the device comprises at least 96 sample ~~chambers~~ chambers.

12. (previously presented) The multichamber microdialysis device of claim 1, wherein the distance between the center of the first open end of each sample chamber to the center of the next adjacent sample chamber is about 9 mm.

13. (previously presented) The device of claim 1 wherein a limiting surface of the fixing part is adjacent to an exchange surface and has at least a partial conical shape whereby the diameter of the exchange opening increases towards the dialysate chamber.

14. (previously presented) The device of claim 1 wherein the dialysate chamber is formed by a trough into which the circumferential side walls protrude.

15. (previously presented) The device of claim 14 wherein the interior surface of the fixing part annular wall is fixed to the outer surface of the circumferential side walls of the sample chambers by frictional press fit connection.

16. (previously presented) The multichamber microdialysis device of claim 1 wherein each semipermeable membrane has an exchange surface area of about 20 mm^2.

17. (currently amended) A multichamber microdialysis device comprising

a plurality of sample chambers in close side by side arrangement, said sample chambers being defined by circumferential side walls having a first open end for taking up liquid samples into the sample chamber and a second open end providing an exchange opening, and

a dialysate chamber for taking up a dialysate liquid,

wherein the exchange opening of each of the sample chambers is covered with a separate ~~and distinct~~ semipermeable membrane fixed liquid-tight to the circumferential side walls of the sample chamber in such a manner to provide a diffusion exchange between the sample chamber and the dialysate chamber when the second end of the sample chamber is placed in contact with the dialysate liquid,

wherein a peripheral marginal section of each semipermeable membrane is clamped between a front face of the circumferential side wall of the sample chamber and a fixing part, wherein each fixing part comprises a ring-shaped portion presenting a circumferential mounting region and an annular wall extending from the perimeter of the ring-shaped portion, and the front face of the side wall comprises an opposing ring-shaped circumferential mounting region, wherein one of the mounting regions comprises a circumferential groove and the other mounting region comprises a protruding rib fitting into the groove by which the membrane is pressed into the groove at its peripheral

marginal section and clamped between the ring-shaped circumferential mounting region and the opposing ring-shaped circumferential mounting region, and

wherein a surface of the ring-shaped portion of the fixing part facing the dialysate liquid has at least a partial conical shape whereby the diameter of the exchange opening increases towards the dialysate chamber.

18. (new) A multichamber microdialysis device comprising

a plurality of sample chambers in close side by side arrangement, said sample chamb ers being defined by circumferential side walls having a first open end for taking up liquid samples into the sample chamber and a second open end providing an exchange opening, and

a dialysate chamber for taking up a dialysate liquid,

wherein the exchange opening of each sample chamber is covered with a separate semipermeable membrane fixed liquid-tight to the circumferential side walls of the sample chamber in such a manner to provide a diffusion exchange between the sample chamber and the dialysate chamber when the second end of the sample chamber is placed in contact with the dialysate liquid,

wherein a peripheral marginal section of each semipermeable membrane is clamped between a front face of the circumferential side wall of the sample chamber and a fixing part, wherein each fixing part comprises a ring-shaped portion presenting a circumferential mounting region and an annular wall extending from the perimeter of the ring-shaped portion, the diameter of said annular wall selected to allow frictional engagement of the annular wall with the circumferential side walls of the sample chambers, and

wherein the outer diameter of a region where the annular wall frictionally engages the circumferential side walls exceeds the sample chamber diameter by less than 3 mm, the front face of the side wall comprising an opposing ring-shaped circumferential mounting region wherein one of the mounting regions comprises a circumferential groove and the other mounting region comprises a protruding rib fitting into the groove, by which the membrane is pressed into the groove at its peripheral marginal section and clamped between the ring-shaped circumferential mounting region and the opposing ring-shaped

circumferential mounting region, said membrane being held in place solely by the frictional engagement of the fixing part onto the second open end of the sample chamber.